

Announcing the results of China's COPD market research report

- **Increasing number of patients, with physicians citing air pollution as the leading cause**
- **Highest awareness rate within pipeline products is Striverdi**
- **Physicians have high expectations for Striverdi and Daliresp/Daxas**

Social Survey Research Information Co., Ltd. (SSRI) and its subsidiary company, SSRI CHINA, have recently completed a syndicated market research study on China's COPD Market. This report provides extensive information from secondary research and primary research based on 200 COPD treaters, covering a broad range of topics such current diagnosis and treatment, current prescription and satisfaction, and future outlook on the market.

Increasing number of patients, with physicians and the government authorities citing air pollution as a cause

Along with the rapidly growing economy, air pollution is becoming a serious problem in China. The Chinese Center for Disease Control and Prevention cite air pollution as one of the main causes of COPD, which is generally not heard in other countries. Chinese Medical Association announced in 2006 that the prevalence of COPD was 8.2% which was similar to other countries.

However, after 10 years, the prevalence has likely increased, and the results of the primary research showed more than 80% of the physicians answering that the number of their COPD patients has increased since 5 years ago. Furthermore, little over 75% of the physicians believe that their number of COPD patients will increase in the future, and expect the number to increase by 137% in the next 10 years. Considering the current population of China (over 1.3 billion), it is clear that there are already over 100 million COPD patients, which indicate the possibility of China to become a future mega-market for COPD medications.

The most commonly used product is ICS/LABA with 73%

The results from the primary research with 200 physicians showed that ICS/LABA fixed dose combination was the most commonly used COPD medication with 73% usage. This was followed by ICS with usage of 71%. In terms of the brand, usage of Symbicort Turbuhaler (budesonide/formoterol) was the highest within the ICS/LABA, and Pulmicort (budesonide) and Solu-Medrol (methylprednisolone) were most commonly used within the ICS.

The satisfaction levels towards these highly used products were generally high, whereas the satisfaction towards TCMs was the lowest, thus suggesting that Chinese physicians are evaluating western COPD medications highly.

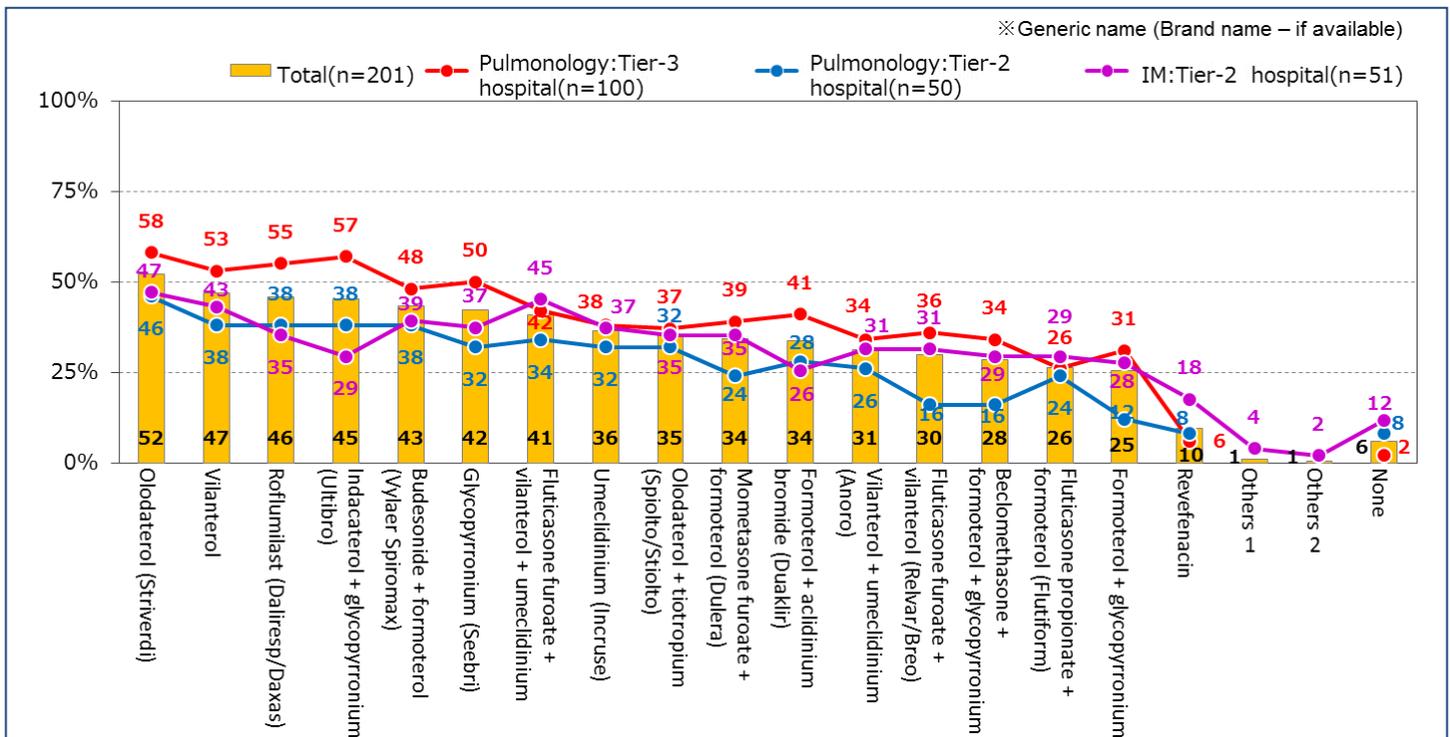
Within the 17 pipeline products, awareness of Boehringer Ingelheim's olodaterol (Striverdi) is the highest with 52%

During primary research, physicians were shown the names of 17 pipeline COPD products in China without any additional information, and were asked about their awareness and expectations for each.

For awareness, Boehringer Ingelheim's "olodaterol (Striverdi)" was the most recognized product with 52% awareness rate, followed by GSK/Theravance's "vilanterol" with 47%, AstraZeneca's "roflumilast (Daliresp/Daxas)" with 46% and Novartis' "glycopyrronium (Ultibro)" with 45%.

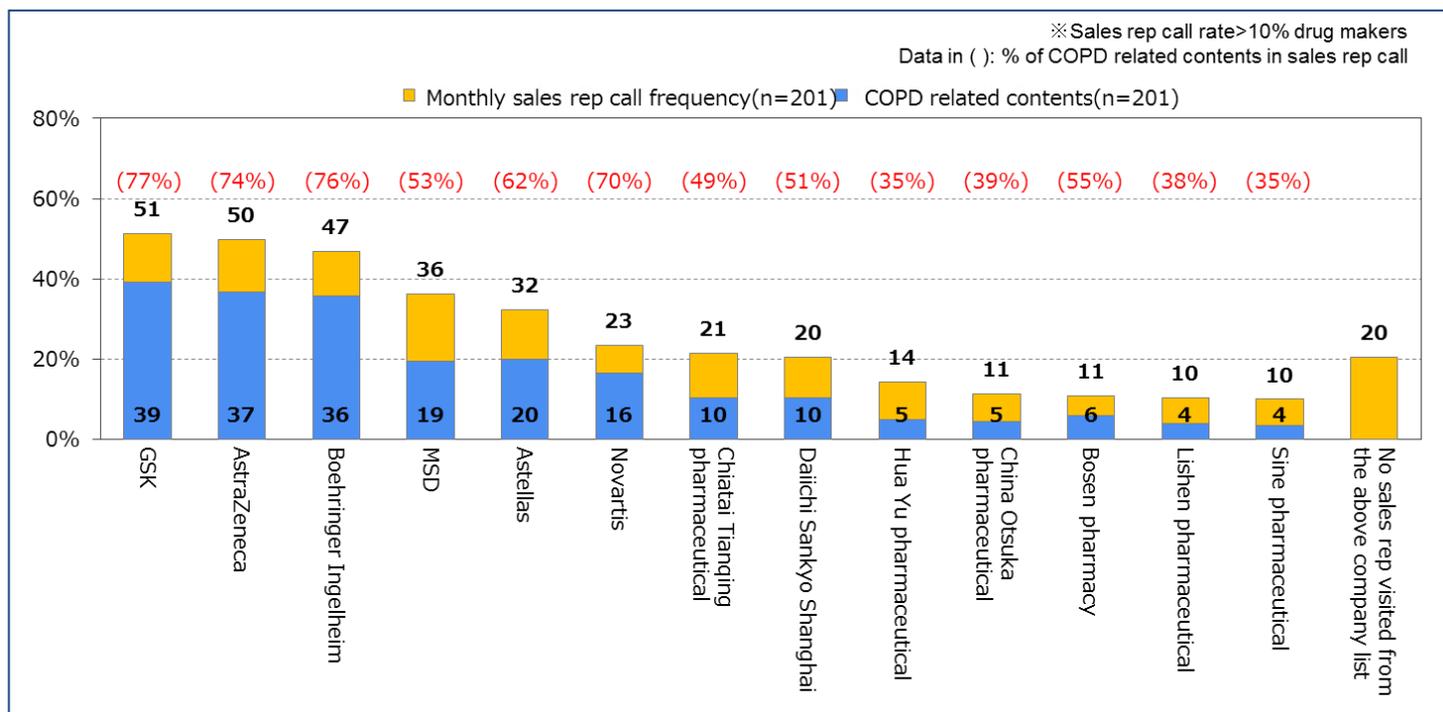
For products in which the physicians have high expectations (multiple answers), "olodaterol (Striverdi)" and "roflumilast (Daliresp/Daxas)" were most commonly selected with 27% each. Expectation of "roflumilast (Daliresp/Daxas)" was particularly high within pulmonologists working in tier 3 hospitals, with 34% selecting this.

On the other hand, for the product with the highest expectation (single answer), GSK/Theravance's triple FDC of fluticasone + umeclidinium + vilanterol was dominant with 19%, which is almost twice as much as the second place product. This trend was more apparent within the pulmonologists working in tier 3 hospitals, in which 26% selected the triple FDC as their most anticipated product compared to indacaterol/ glycopyrronium (Ultibro) which came in second place with 14%.



GSK has the highest sales rep visitation rate with 51%

During primary research, physicians were asked about sale rep visitations in the recent month for 37 companies (MNCs and local companies) and about provision of information specific to asthma and COPD. As a result, GSK had the highest sales rep visitation rate with 51%, followed by AstraZeneca and Boehringer Ingelheim. These three companies dominated the remaining companies in terms of sales rep visitation rates.



About the report

This report is a two part report, including secondary research report and a primary research report with 200 COPD treating physicians, to get a broad overview of the COPD market in China.

Report contents

Part1	Part2
<p>Secondary research about China's COPD market (30~40-pages)</p>	<p>Primary research conducted in China by SSRI & SSRI-China (100+ pages)</p>

Part1: contents of secondary Research

- COPD in China (Prevalence, mortality rate, causes)
- COPD diagnosis & treatment (comparison between China vs. GOLD)
- Issues with COPD diagnosis and treatment in China
- Activities of COPD drug manufacturers in China
- COPD Pipeline drugs in China
- Etc.

Pipeline COPD Drugs in China

Type	Generic Names
Long-acting β_2 Agonist (LABA)	Olodaterol (Striverdi)
	Vilanterol
Long-acting Muscarinic Antagonist (LAMA)	Glycopyrronium (Seebri)
	Umeclidinium (Incruse)
	Revefenacin
LABA /LAMA Combination	Indacaterol + glycopyrronium (Ultibro)
	Vilanterol + umeclidinium (Anoro)
	Olodaterol + tiotropium (Spiolto/Stiolto)
	Formoterol + aclidinium (Duaklir Genuair)
	Formoterol + glycopyrronium
ICS/LABA Combination	Fluticasone + vilanterol (Relvar/Breo)
	Budesonide + formoterol (Vylaer Spiromax)
	Mometasone + formoterol (Dulera)
	Fluticasone + formoterol (Flutiform)
ICS/LABA/LAMA Combination	Fluticasone + vilanterol + umeclidinium
	Beclomethasone + formoterol + glycopyrronium
PDE-4 Inhibitor	Roflumilast

Part2: Outline of primary research

Methodology:

- Internet survey
 - URL links of the questionnaire was sent to qualified respondents via email after telephone recruitment

Sample:

- Total n=200

		T3 hospitals	T2 hospitals	
		Pulmonologists	Pulmonologists	IMs
T1 Cities	Beijing	17	8	8
	Shanghai	17	8	9
	Guangzhou	16	8	8
T2 Cities	Shenyang	17	2	8
	Zhengzhou	17	6	5
	Chengdu	16	9	8
	Wuhan	-	9	4
Subtotal		100	100	
TOTAL		200		

Study regions:

- Tier-1 Cities: Beijing, Shanghai, Guangzhou
- Tier-2 Cities: Shenyang, Chengdu, Zhengzhou



Recruitment Criteria:

- Facility type: Tier-3, Tier-2 hospitals
- Title: Chief director, Vice chief director, Doctor in-charge
- Clinical experience: 3 years or more
- Department: Pulmonology, Internal medicine (IM) (IMs =Tier-2 hospitals only)
- Minimum monthly number of COPD patients:
 - Pulmonologists = ≥ 30
 - IM doctors = ≥ 10

Questionnaire outline:

Basic Information

- Total pt No., COPD/asthma pt No.
- Pt composition: age, gender, severity, insurance
- Risk factors of COPD
- Method of diagnosis

Drug treatments for COPD

- Drug type being used, Rx%, brand name
- Satisfaction with COPD drug treatment (in general and by each drug type)
- Treatment goals
- Important attributes of COPD drugs
- Unmet needs

COPD drugs in pipeline

- Awareness and expectations for each
- Ranking of drugs with high expectations and the reasons

COPD patients in the future

- Expected number of patients (by respondent and nationwide) in the next 5 years / 10 years
- Important topics for the future COPD market

Activities of drug makers (sales reps)

- Companies who visited last month
- Visits relating to COPD/asthma
- Reliable information source

Study period:

March ~ April 2016

Date of Release:

September, 2016

Price:

Please ask

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◆Company profile

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